State of California
The Resources Agency
Department of Water Resources
September 19, 2006

Addendum Number 2 to the Mitigated Negative Declaration for the Northern Pike Containment System at the Outlet of Lake Davis on Big Grizzly Creek

PURPOSE

The Department of Water Resources (DWR) has prepared a second addendum to the Mitigated Negative Declaration for the Northern Pike Containment System at the Outlet of Lake Davis on Big Grizzly Creek to describe placement of rip-rap rock and construction of a sump. Section 15164 (b) of the California Environmental Quality Act (CEQA) Guidelines states that an Addendum to an adopted Negative Declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 (calling for the preparation of subsequent EIR or Negative Declaration) apply.

BACKGROUND

DWR has designed a northern pike containment system for Lake Davis outlet discharges. The discharge from the reservoir outlet works may flow through up to eight "strainers". The strainers will remove all material 1.0 mm or larger before releasing the water into Big Grizzly Creek, which flows into the Middle Fork of the Feather River. The 1.0 mm strainer openings will catch northern pike eggs and larvae, in addition to any adult fish. After passing through the strainer system, the water will be released into Big Grizzly Creek. Construction will occur from July 2006 through November 2006. The Notice of Determination was filed on May 22, 2006. The first addendum was completed on August 9, 2006.

The May 2006 Mitigated Negative Declaration and Initial Study does not contain information regarding an erosion control system downstream of the Cipolletti weir (DWR 2006). While completing construction of the concrete pad upstream of the Cipolletti weir, project engineers determined that bedrock was more than 3 feet below the existing stream bed. When DWR staff completed the initial study in March 2006, assessment of the effects of strainer release on downstream erosion was based on engineering drawings for Grizzly Valley Dam and information from geologists. That information indicated that bedrock was probably 1 foot below the stream bed, and that existing rock would prevent down cutting and erosion of the bank.

Water releases from the 10-inch bypass line were initiated on July 17, 2006. The bypass line is releasing water at around 25 cubic feet per second (cfs). Immediately following initial releases, mats were placed on the right bank to protect vegetation, limit erosion,

and prevent water quality impacts. Once the strainers and the 36-inch release pipe are installed, the system will once again have the capability to release up to 200 cfs. Strainer releases of up to 200 cfs may erode the stream bed and both banks, damage vegetation, and create temporary increases in turbidity.

To protect against potential erosion, DWR will install rip-rap rock revetment on top of geotextile fabric as needed. The fabric and revetment may be placed downstream of the Cipolletti weir and extend forty feet downstream along the bottom and sides. Drawing 1 shows the maximum amount of rock that would be placed in the channel. Up to eighty cubic yards of rock will be placed on the banks and in the stream channel using a crane. Stream flow may be temporarily reduced and piped around the area of rock placement to minimize turbidity increases during rock placement. Rock will be placed on top of existing vegetation on the banks (Photo 1 and 2). The rock will be purchased from a nearby quarry, and will be 3 to 4 feet in size and cleaned prior to placement in creek.

The west bank upstream of the Cipolletti weir is unstable and is undermining the thrust blocks which support the 10-inch steel, strainer bypass-pipe. A shot-crete layer, no more than two inches thick, will be placed over the west bank to stabilize the erodible material (Photo 3). The shot-crete layer will be localized to cover only the west bank upstream of the Cipolletti weir and below the 10-inch pipe.

Photo 1. View of west bank of Big Grizzly Creek downstream of Cipolletti weir. Rip-rap will be placed on stream banks and in the channel as shown by the orange arrows.

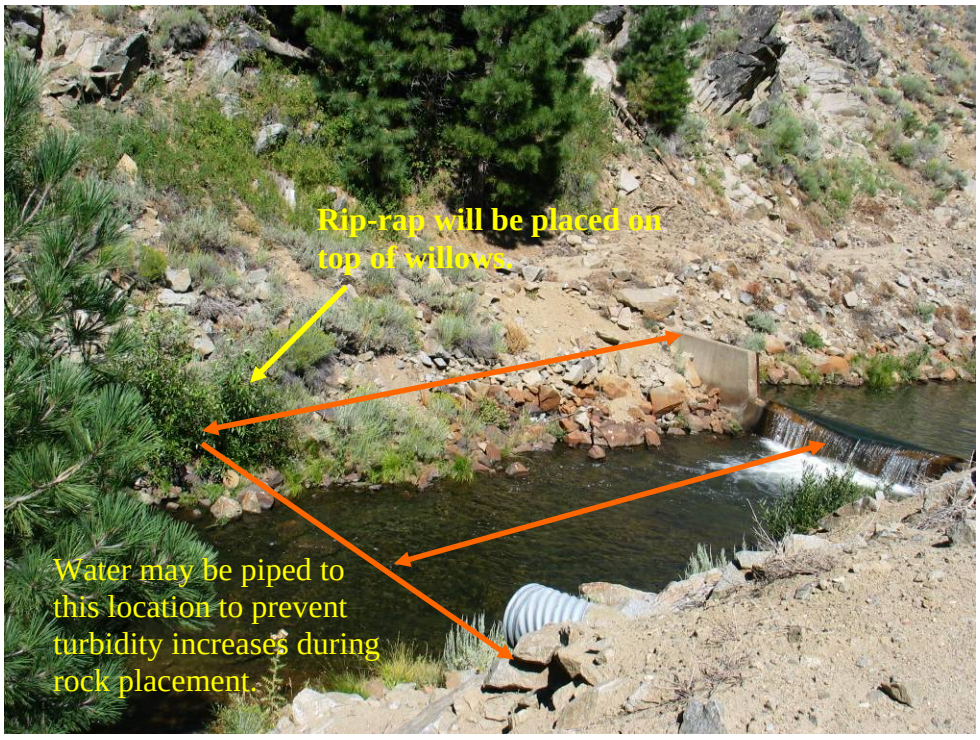

Photo 2. View of east bank of Big Grizzly Creek downstream of Cipolletti weir. Rip-rap will be placed on stream banks and in the channel as shown by the orange arrows.

After installation of the concrete pad DWR determined that it will be necessary to create a gravity fed sump to collect seepage water from Grizzly Valley Dam. The sump will keep the area upstream of the Cipolletti weir dry which will help maintain the integrity of the structures in the area. A submerged pump will automatically pump water out of the sump and into Big Grizzly Creek downstream of Cipolletti weir.

The May 2006 Mitigated Negative Declaration and Initial Study does not describe the sump. The sump will be a concrete lined box about 2 feet high by 2 feet wide by 3 feet deep. It will be upstream of the Cipolletti weir between the concrete slab and left bank (Photo 3). The sump will be lined with concrete to prevent increases in downstream turbidity. The sump will be constructed in an area of the stilling basin that was once under the ordinary high water mark. No vegetation or portion of the bank will be disturbed during the construction of the concrete lined sump.

In the May 2006 Mitigated Negative Declaration and Initial Study, the 10-inch bypass line was described as a temporary release for water during construction. The 10-inch bypass line was placed on the west bank and releases water downstream of the Cipolletti weir. DWR may remove the 10-inch bypass line on the west bank at project completion or leave it in place. If it is removed, a 10-inch bypass line will be placed down in the stream bed on the concrete pad (Photo 3 and 4). The 10-inch bypass line provides DWR with greater operational flexibility. For example, if the strainers are taken off line, water can be released through the bypass line with the grater attached allowing DWR to meet the needs of downstream diverters and aquatic life.

Photo 3. View of area upstream of Cipolletti weir and future sump collection box.

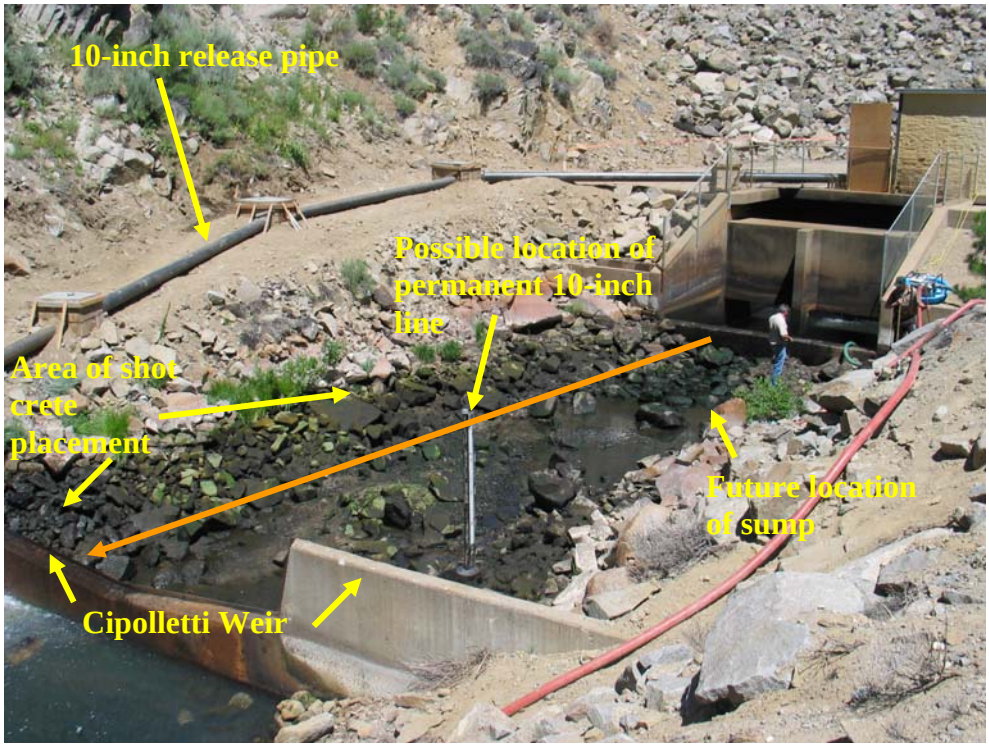

Photo 4. View of downstream end of 10-inch release pipe.

EXPLANATION OF THE DECISION NOT TO PREPARE A SUBSEQUENT MITIGATED NEGATIVE DECLARATION

CEQA Guidelines Sections 15162 and 15164 set forth the criteria for determining the appropriate environmental documentation, if any, to be completed when there is a pre-existing adopted Mitigated Negative Declaration covering a project. DWR provides the following findings pursuant to these criteria as required by CEQA Guidelines Section 15164 (e).

CEQA Guidelines Section 15162 (a) states that when a Negative Declaration has been adopted for a project, no subsequent Environmental Impact Report (EIR) shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole public record, one or more of the following:

1. ***Substantial changes are proposed in the project which will require major revisions of the previous negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.***

Discussion: DWR's Mitigated Negative Declaration (State Clearinghouse number: 2006042012) does not include placement of rip-rap revetment, shot-crete layer or construction and operation of a sump. As mentioned above, construction activities have shown that bedrock is more than 3 feet below the existing stream bed. Evaluations in the initial study were based on information available in January 2006 which indicated that bedrock was probably 1 foot below the stream bed, and that existing rock would prevent down cutting and erosion of the bank. DWR now believes that strainer releases of up to 200 cfs may erode the stream bed and both banks, damage vegetation, and create temporary increases in turbidity. To minimize the temporary increases in turbidity and erosion, DWR will place rip-rap revetment on the banks and channel bottom.

Placement of the rip-rap rock will minimize potential temporary turbidity increases from project operation to less than significant levels. Rock will be placed on a few willows but those are expected to grow around the rocks over time and help anchor the rock in place. To compensate for any loss of willows, DWR will plant willows downstream of the project site resulting in a less than significant impact to riparian habitat in the project area. DWR biologists have conducted weekly spring bird surveys of the project area. No nesting willow flycatchers or yellow warblers were found in the willows that will be covered by the rock or in riparian habitat within 1/3 mile of the project area. In addition, placement of the rock will occur in September or October after completion of the nesting season. Consequently, no new significant effects will occur.

The construction of the sump will not result in any significant effects on the environment because it is being placed upstream of the Cipolletti weir adjacent to the concrete pad. The May 2006 Mitigated Negative Declaration and Initial Study identified this area as a

permanent loss of stream channel when we permanently dried up the creek from the Dam to the Cipolletti weir. The loss in stream habitat was less than significant.

Placement of a permanent 10-inch bypass line on the concrete pad and of shot-crete on the west bank upstream of the Cipolletti weir will not create any new impacts. The loss of stream habitat upstream of the Cipolletti weir was analyzed in the May 2006 Mitigated Negative Declaration and Initial Study. Consequently, no new significant effects are introduced and the loss of stream habitat remains less than significant.

2. ***Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.***

Discussion: Site information collected during construction indicates that strainer operation may temporarily erode the stream bed and banks downstream of the Cipolletti weir. DWR will place rip-rap rock on the stream banks and channel to minimize erosion and avoid significant or sustained turbidity increases. This will reduce the project's operational effects on water quality to less than significant levels. No new significant environmental effects or increases in the severity of previously identified significant effects will occur with the construction and operation of the sump, the permanent 10-inch bypass line or placement of a shot-crete layer.

3. ***New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the negative declaration was adopted (May 2006), shows any of the following:***

    a. ***The project will have one or more significant effects not discussed in the negative declaration.***

    Discussion: Project construction has shown that bedrock is likely 3 feet below the existing stream bed. Water releases from the strainers may temporarily erode the stream bed and banks causing a temporary increase in erosion and turbidity at the site. The addition of the rip-rap will minimize erosion and turbidity increases from project operation to less than significant levels.

    The construction of the sump will not result in any significant effects on the environment because it is being placed upstream of the Cipolletti weir adjacent to the concrete pad. The permanent 10-inch bypass line may be placed on the concrete pad upstream of the Cipolletti weir. A shot-crete layer will be placed on the west bank upstream of the Cipolleti weir. The May 2006 Mitigated Negative Declaration identified this area as a permanent loss of stream channel when we permanently dried up the creek from the Dam to the Cipolletti weir. The loss in stream habitat was less than significant. See discussion for #1 and #2 for more information.

b. Significant effects previously examined will be substantially more severe than shown in the negative declaration.

Discussion: None of the environmental effects that were identified in the Mitigated Negative Declaration and Initial Study will be substantially more severe as a result of the addition of the rip-rap, shot-crete or the construction of the sump and permanent bypass line. See discussion for #1 and #2 for more information.

c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

Discussion: The addition of the rip-rap, shot-crete, the construction of the sump, and the permanent 10-inch bypass line do not alter any of the mitigation measures described in the Mitigated Negative Declaration or Initial Study (DWR 2006). The Mitigated Negative Declaration and Initial Study identified no infeasible mitigation measures.

d. Mitigation measures or alternatives which are considerably different from those analyzed in the negative declaration would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Discussion: DWR does not decline to adopt any mitigation measures.

CONCLUSION

Responses to the criteria #1-3 do not result in the need to prepare a Subsequent Mitigated Negative Declaration pursuant to CEQA Guidelines Section 15162 or 15164. Thus, this Addendum to the adopted Mitigated Negative Declaration has been prepared in accordance with CEQA Guidelines, Section 15164. The addition of rip-rap and shot crete, and construction and operation of the permanent bypass line and sump do not introduce new significant environmental effects, increase previously identified significant environmental effects, make previously infeasible mitigation measures feasible, or require adoption of infeasible mitigation measures. The addition of the rip-rap, shot-crete, and the construction and operation of the 10-inch bypass line and sump do not alter the findings in the original Initial Study or Mitigated Negative Declaration (DWR 2006).

REFERENCES

DWR. 2006. Mitigated Negative Declaration and Initial Study for the Northern Pike Containment System at the Outlet of Lake Davis on Big Grizzly Creek. May. Sacramento CA. Available at http://www.watershedrestoration.water.ca.gov/fishpassage/.

Drawing 1. Plan view of maximum rip-rap rock placement